

**FASEB
1990 CONFERENCE AGENDA
Cellular and Molecular Genetics**

Monday, August 13

9:00 a.m.

**Session I
Developmental Biology**

Chairperson: Tom Kornberg
C. Nusslein Volhard
T. Jessel
J. Kimble
I. Herskowitz

This session is designed to study the development of organisms. In particular, emphasis will be made towards pattern formation, segmentation, early polarity during development. Systems are chosen with unique features. The overall discussion will include yeast, *Drosophila*, *C. elegans*, chicken. Mouse development will be discussed in a separate technique session.

Monday, August 13

7:30 p.m.

**Session II
Differentiation**

Chairperson: Steve Hauschka
C. Emerson
T. Graf
C. Sherr

This session is designed to study specific cell types which undergo differentiation in response to a variety of agents. During this session the emphasis will be on the genetic machinery involved in differentiation. The session will cover differentiation of muscle cells and various hematopoietic lineages.

Tuesday, August 14
9:00 a.m.

Session III
DNA Replication

Chairperson: Geoff Wahl
Bruce Stillman
Carol Prives
Alan Spradling
J. Huberman

This session is designed to update the progress in the mechanism of DNA replication. Recent advances in understanding origins of replication and their possible mechanism will also be discussed. The role of transcription factors masquerading as replication proteins will also be discussed.

Tuesday, August 14
7:30 p.m.

Session IV
Control of Transcription

Chairperson: Kathryn Calame
Lou Stoudt
Inder Verma
Mike Green

This session is designed to study the control of transcription. Many transcriptional factors and the mechanism by which they transactivate or transrepress genes will be discussed. This session will also deal with how certain oncogenes can act as transcriptional factors.

Wednesday, August 15
9:00 a.m.

Session V
RNA Processing

Chairperson: Tom Cech
David Hirsh
Mike McKeown
Phil Perlman

This session is designed to study the physical and biochemical basis of RNA splicing. Emphasis is also given to the RNA catalysis and the mechanism by which this is carried out. This session will also discuss developmental regulation of certain genes based upon the control at the level of splicing.

Wednesday, August 15
7:30 p.m.

Session VI
Cell Cycle Regulation

Chairperson: Tony Hunter
Y. Schlessinger
D. Beach
E. Krebs

This session will deal with the role of growth factors and receptors in cell growth and regulation. The role of cell cycle and the proteins involved in cell cycle regulation will be discussed. Finally, the role of posttranslational modification, in particular, phosphorylation on the cell cycle regulation will be discussed.

Thursday, August 16
9:00 a.m.

Session VII
Oncogenes and Antioncogenes

Chairperson: Arnold Levine
E. Harlow
D. Livingstone
A. Berns

This session will include the latest in recessive oncogenes and, in particular, those oncogenes which can act both as dominant and recessive oncogenes. Emphasis will also be placed on interaction of many oncogenic proteins with normal cellular proteins to study their influence on cell growth and transformation.

Thursday, August 16
4:00 p.m.

Session VIII
Molecular Neurobiology

Chairperson: Steve Heinemann
Charles Zucker
Marty Chalfie
Randy Reed

This session is designed to acquaint the audience with the progress made in studying various neural systems at the molecular level. Nicotinic receptors will be discussed, as well as the molecular mechanism of vision, olfactory, and motor systems will also be discussed.

Thursday, August 16
7:00 p.m.

Banquet

Friday, August 17
9:00 a.m.

Session IX
Human Genetics

Chairperson: Tom Caskey
Francis Collins
Dave Ward
Phil Leder

This session is designed to acquaint the participants with the progress in the identification of human genetic diseases. The session will also discuss new methods of making model mice systems by using transgenic approaches. There will be discussion of the latest discovery of the cystic fibrosis gene and its implication for diagnostics.

TECHNIQUE SESSIONS

Monday, August 13
3:00 - 5:00 p.m.

1. Mouse Genetics

Elizabeth Robertson
Rosa Beddington

This session is designed to acquaint the participants with the modern technology of making homologous recombination and generating mice where genes have been deleted or altered. This session will also discuss some of the lineage analyses using mouse genetics.

Wednesday, August 15
3:00 - 5:00 p.m.

2. Physical Manipulation of the Human Genome

David Cox

This session is designed to bring forth the latest technological advances in mapping the human genome and manipulating the large genome. This will include not only radiation damage mapping, but also cosmic mapping as well as YAC vectors.

POSTER SESSIONS

We plan to have at least two poster sessions.